Thank you for purchasing our product.
Please read this User's Manual before
using the product. Change without notice

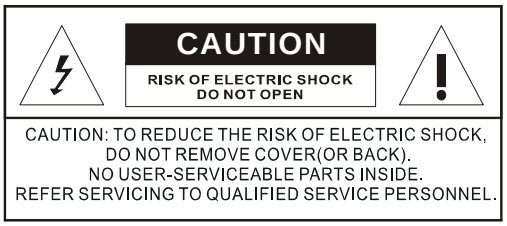
19" / 22" LCD - wide

User's MANUAL

WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.
DO NOT INSERT ANY METALLIC OBJECT THROUGH VENTILATION GRILLS.

CAUTION:


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER(OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

Explanation of Graphical Symbols

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

Important Information

IMPORTANT SAFEGUARDS
1. READ INSTRUCTIONS
All the safety and operating instructions should be read before the unit is operated.
2. RETAIN INSTRUCTIONS
The safety and operating instructions should be retained for future reference.
3. HEED WARNINGS
All warnings on the unit and in the operating instructions should be adhered to.
4. FOLLOW INSTRUCTIONS
All operating and usage instructions should be followed.
5. CLEANING
Unplug this unit from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Clean only with a dry cloth.
6. ATTACHMENTS
The manufacturer of this unit does not make any recommendations for attachments, as they may cause hazards.
7. WATER AND MOISTURE
Do not use this unit near water. For example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool.
8. ACCESSORIES
Do not place this unit on an unstable cart, stand, tripod, bracket, or table. The unit may fall, causing serious injury, and serious damage to the unit. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.
9. VENTILATION
Slots and openings at the rear cabinet and bottom are provided for ventilation, these are to ensure reliable operation of the unit, and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the unit on a bed, sofa, rug, or other similar surface. This unit should never be placed near or over a radiator or heat source. This unit should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer’s instructions have been adhered to.
10. POWER SOURCE
This unit should be operated only from the type of power source indicated on the rating plate. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company.
11. POWER-CORD PROTECTION
Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
12. LIGHTNING
To protect your unit from a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the unit due to lightning and power line surges.
13. POWER LINES
An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall onto or against such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits, as contact with them might be fatal.
14. OVERLOADING
Do not overload wall outlets and extension cords, as this can result in a risk of fire or electric shock.
15. OBJECT AND LIQUID ENTRY
Do not push objects through any openings in this unit, as they may touch dangerous voltage points or short out parts that could result in fire or electric shock. Never spill or spray any type of liquid into the unit.
16. HEAT
The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.
17. CONNECTING
When you connect the product to other equipment, turn off the power and unplug all of the equipment from the wall outlet. Failure to do so may cause a product damage. Read the owner's manual of the other equipment carefully and follow the instructions when making any connections.
18. LCD
Do not press on or jolt the LCD panel. Doing so may cause the LCD panel glass to break and injury may occur. Should the LCD panel be broken and liquid leaks out, do not inhale or swallow it. Doing so may cause poisoning. If you have got it into your mouth, wash it out and consult your doctor. If your hands or clothes have touched it, wipe them with alcohol and a cleaning cloth and then wash them well.

Safety Precautions

Federal Communications Commission (FCC) Statement

This Equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-Reorient or relocate the receiving antenna.

-Increase the separation between the equipment and receiver.

-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

This device complies with Part 15 FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference.

(2) This device must accept any interference received including interference that may cause undesired operation

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Components

LCD Color Monitor x1

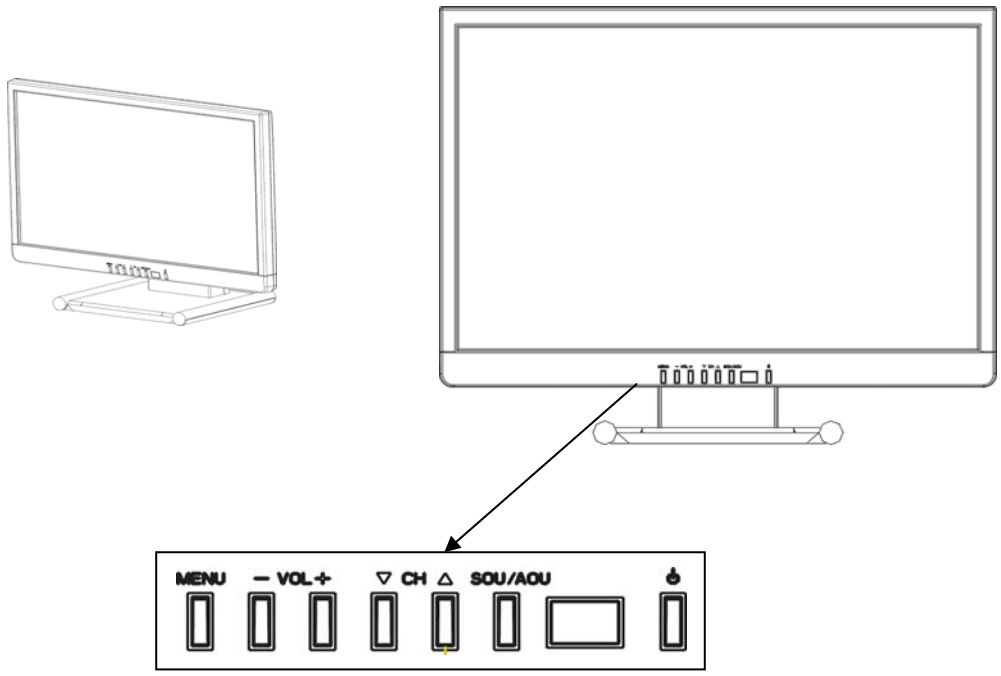
Accessories

(a) Power cord x1
(b) Adapter x1
(c) User Manual x1
(d) Bracket x1

Feature

- 19/22-inch high resolution professional CCTV LCD monitor
- Resolution 1440 x 900 / 1680 x 1050pixel under 16:10 aspect ratio
- High resolution and wide angle view
- State-of-Art 2D Color Comb Filter and 2D De-interlace technology
- Support non-linear scaling ratio function
- Adaptive 2D noise reduction
- Fast refresh rate and response time avoid lagging effect
- Selectable 6500˚ K and 9300˚ K color temperature setting
- Support video system NTSC / PAL
- Built-in Key Lock feature for easy management
- 75ohm Auto Termination
- Built-in speaker with clear audio sound
- VESA 100mm x 100mm mounting standard
- Light sensor detection - LCD monitor lightness will vary with the environment brightness. LCD Brightness variation is from 3 Lux(ON) to 0.5Lux(OFF)

Front panel button define



POWER: ON / OFF button

19” SOURCE : Video source select / OSD ESC

22” SOU/AOU: Video source select / OSD ESC

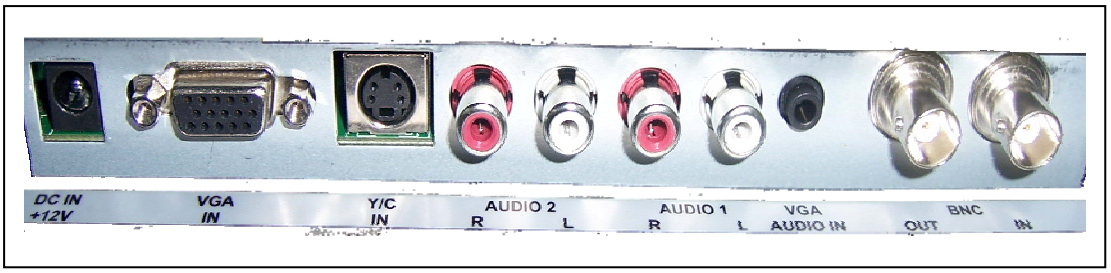
△ Up: Direction key-up, item select

▽ Down: Direction key-down, item select

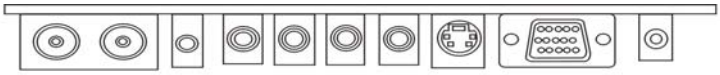
+/- OSD item value increase and decrease

MENU LCD OSD button / ENTER

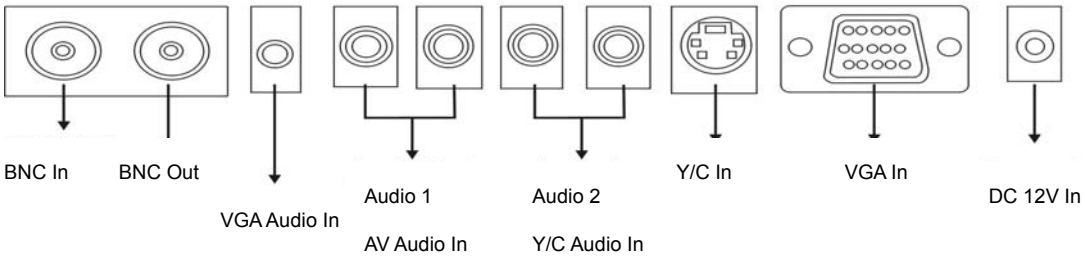
Rear panel connection define



Left Right



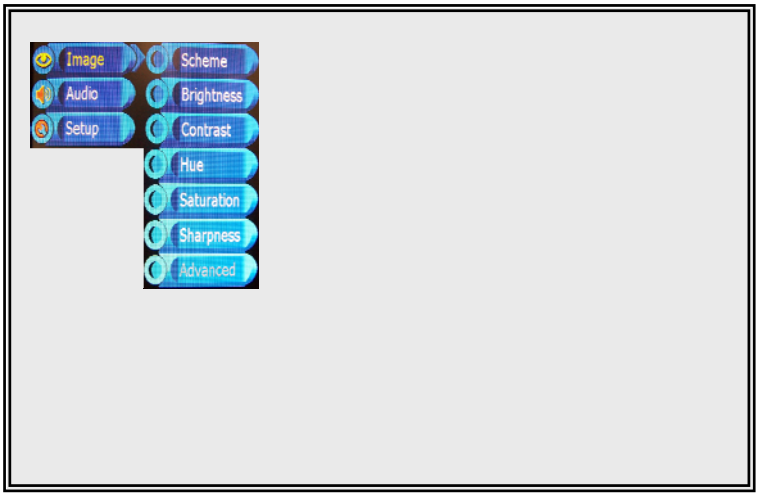
Right Left



Note: Connections of Audio

	Audio 1	Audio 2	PC Audio
BNC	V		
Y/C		V	
VGA			V

CVBS OSD - Image



Scheme: Normal / Vivid / Cinema

Brightness: Adjusts the overall picture shade and brightness.
Min. ~ Max.:0~100 / Default:45

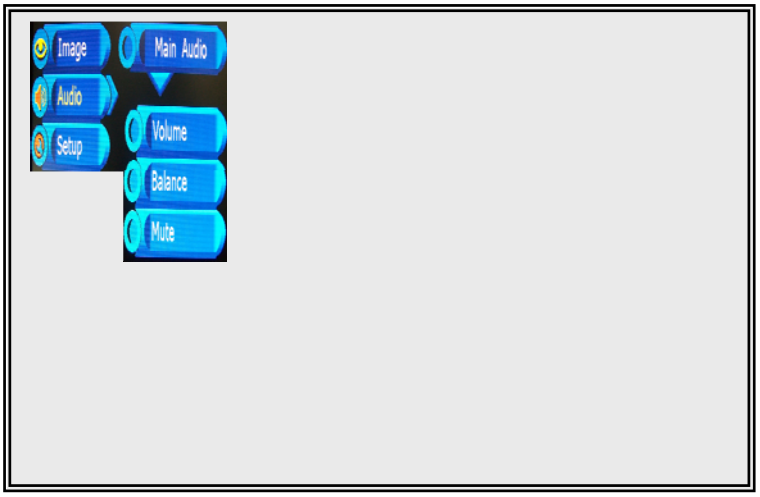
Contrast: Permits adjustment of contrast between light and dark areas of the picture.
Min. ~ Max.:0~100 / Default:45

Hue: To determine the lightness and colorfulness of the picture.
Min. ~ Max.:0~100 / Default:50

Saturation: Adjusts the intensity of the color.
Min. ~ Max.:0~100 / Default:50

Sharpness: Sets the desired sharpening enhancement to the picture.
Min. ~ Max.:0~23 / Default:12

CVBS OSD - Audio

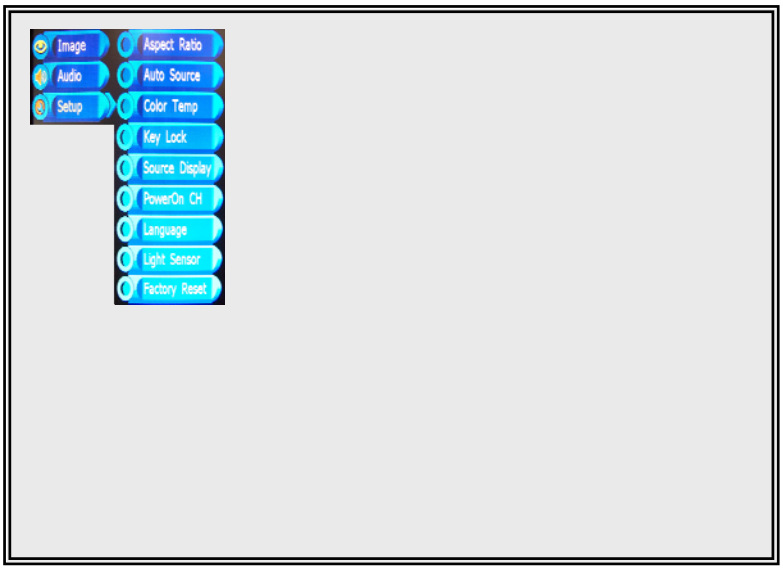


Volume: Controls built-in speakers' output volumes.
Min. ~ Max.:0~29 / Default:20

Balance: Adjusts the softness of loudness of notes in the sound.
Min. ~ Max.:0~20 / Default:10

Mute: To disable the audio function. To enable, press MUTE again.

CVBS OSD - Setup



Aspect Ratio: To change the display mode.
Full Screen / 4:3 Mode / Panoramic

Auto Source: The monitor will auto detect the video source when power ON.
ON / OFF

Color Temp: Selects color temperature of either 6500°K or 9300°K.

Key Lock: The Key-Lock function is provided to prevent tempering.
To unlock, press + and MENU.
ON / OFF

Source Display: This function is to allow the channel title to be displayed on the monitor.
ON / OFF

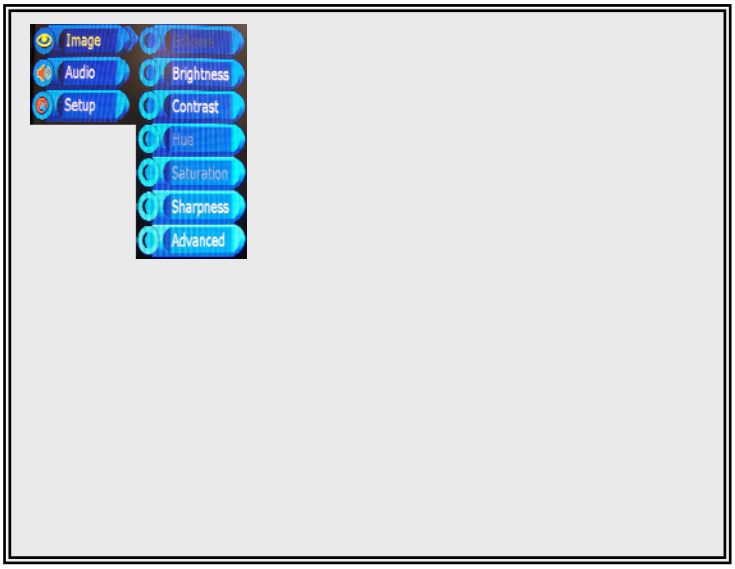
Power On CH: This function is to assign a specific video signal when power ON.
None / CVBS / S-VIDEO / VGA

Language: English.

Light Sensor: LCD monitor brightness will vary with the environment lightness.
LCD Brightness variation is from 3 Lux(ON) to 0.5Lux(OFF)
Off / On---15/30/45/60 Min

Factory Rest: Back to factory default

Graphics OSD - Image



Brightness: Adjusts the overall picture shade and brightness.
Min. ~ Max.:0~100/ Default:50

Contrast: Permits adjustment of contrast between light and dark areas of the picture. Min. ~ Max.:0~100 / Default:50

Sharpness: Sets the desired sharpening enhancement to the picture.
Min. ~ Max.:0~23 / Default:12

Advanced: Auto Adjust: VGA signal auto detection and adjustment

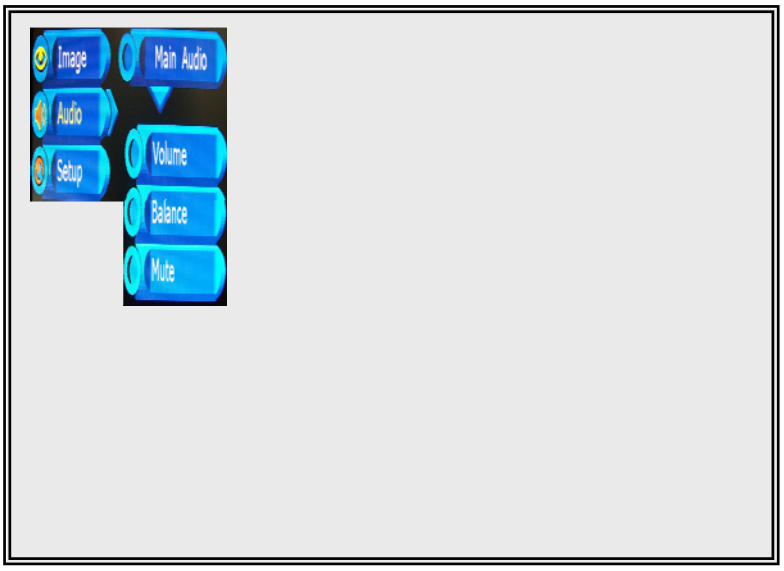
Image Pos: Screen position adjustment

Phase: Is used to adjust best picture quality. It adjusts the sampling phase across one pixel time. When the phase is not adjusted properly, the picture will be unclear. Therefore this value should be carefully adjusted. Note: improper adjustment will cause image failure

Clock: Is used to adjust best picture quality. It adjusts the numbers of the pixel clock across one line time. Therefore it can affect the picture position and size. Note: improper adjustment will caused image failure

Auto Color:

Graphics OSD - Audio



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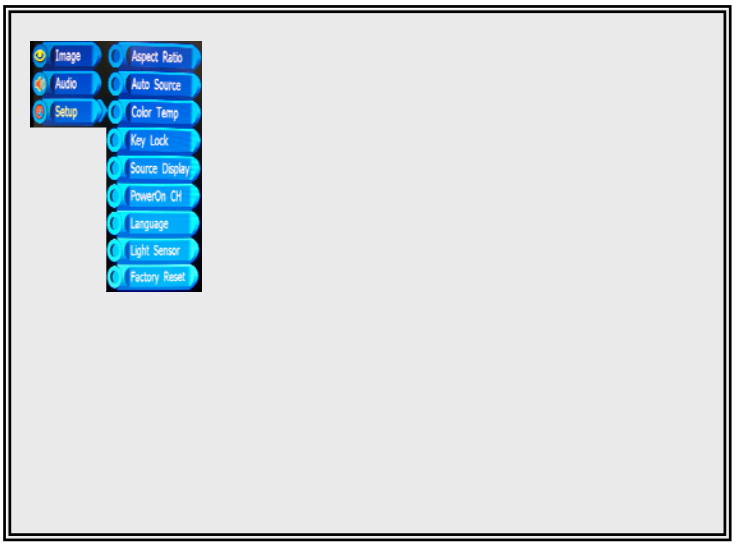
Min. ~ Max.:0~20 / Default:10

Mute: To disable the audio function. To enable, press MUTE again.

Graphics OSD - Setup



Aspect Ratio: To change the display mode.
Full Screen / 4:3 Mode

Auto Source: The monitor will auto detect the video source when power ON.
ON / OFF

Color Temp: Selects color temperature of either 6500°K or 9300°K.

Key Lock: The Key-Lock function is provided to prevent tempering.
To unlock, press + and MENU. ON/OFF

Source Display: This function is to allow the channel title to be displayed on the monitor.
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Power On CH: This function is to assign a specific video signal when power ON.
None / CVBS / S-VIDEO / VGA

Language: English.

Light Sensor: LCD monitor brightness will vary with the environment lightness.
LCD Brightness variation is from 3 Lux(ON) to 0.5Lux(OFF)
OFF/ON---15/30/45/60 Min

Factory Rest: Back to factory default

Specifications

Model	19”	22”
Front Control	POWER: ON/OFF button	
	Up: Direction key-up, item select	
	Down: Direction key-down, item select	
	MENU: LCD OSD button	
	SOURCE: Video source select	
	+/-: OSD item value increase and decrease	
Display Resolution (Dot)	1440 x 900	1680 x 1050
Active Area (mm)	410.4(H) x 256.5(V)mm	477.7(H) x 300.1(V)mm
Dot Pitch (mm)	0.285 x 0.285mm	0.282 x 0.282mm
LCD Profile Ratio	16:10	
Display Color	16.7M colors (RGB 8-bit data)	
Color Gamut	72% typ., NTSC coverage	
Brightness (Central)	380 cd/m2	300 cd/m2
Contrast Ratio	1000 : 1 typ.	1000 : 1 typ.
Viewing Angle	H : 170 V : 160	
Response Time	5ms	
Input Voltage	12V DC	
Input Signal	1Vp-p composite video	
Input Impedance	75 ohm	
Output Impedance	75 ohm Auto Termination	
Operating System (NTSC/PAL)	525 lines,60 fields/sec. ; 625lines,50fields/sec.	
VGA Input	15 pin D-SUB connector	
Video Input/Output	BNC x 1 / BNC x 1 Looping Output Auto Termination	
Audio Input (L/R)	RCA Jack x 2	
S-Video	4-pin DIN connector input x 1	
Speaker	1W + 1W	
Power consumption	42W / 3.5A Max	
Weight	N.W./ G.W.: 5.9kg/ 7.5kg	N.W./ G.W.: 7.34kg/ 9.1kg
Dimension(W)/(D)/(H)	441.65x225x353.2mm	506.8x225x374.5mm
Operating Temperature	-10 to 50℃ (14 to 122℉)	
Storage Temperature	-20 to 60℃ (-4 to 140℉)	

(*1)The brightness spec. is from panel spec. Design and specifications are subject to change without notice.

(*2) It is not guaranteed for all the specified range.

Troubleshooting

Before calling a service technician, please check the following table for a possible cause of the problem and some solution.

Symptom	Solution
Monitor will not turn on	● Make sure the power cord is plugged in, then press POWER button.
No picture, no sound	● Check cable connections.
No sound, picture OK	● Check audio Cable Connections ● Try pressing Volume up button in the Menu.
Poor color, sound OK	● Check cable connections ● Adjust Video set up menu.
Poor color or no color	● Adjust Color and / or TINT (NTSC only)

Resolution test

Timing		19”	22”
VGA	640x480@60Hz	OK	OK
	640x480@72Hz	OK	OK
	640x480@75Hz	OK	OK
SVGA	800x600@56Hz	OK	OK
	800x600@60Hz	OK	OK
	800x600@72Hz	OK	OK
	800x600@75Hz	OK	OK
XGA	1024x768@60Hz	OK	OK
	1024x768@70Hz	OK	OK
	1024x768@75Hz	OK	OK
WXGA	1440x900@60Hz	OK	OK
	1680x1050@60Hz	NA	OK